



## Inspection Report

University Of California- Davis  
One Shields Ave  
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Customer ID: 9192

Certificate: 93-R-0433

Site: 001

UNIVERSITY OF CALIFORNIA, DAVIS

Type: ROUTINE INSPECTION

Date: May-27-2014

### 2.31 (e) (3) REPEAT

#### INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

A protocol using non-human primates (NHPs) did not contain a complete description of the procedure used for the implantation of a subcutaneous mini-pump. The description does not contain any details regarding the size of the pumps, the length of the incisions needed to implant the devices, or the locations where the pumps were to be placed. Additionally, the protocol did not contain animal weight or size parameters. The procedure was to be performed more than once in order to replace the pumps. The protocol was amended to remove the pumps and instead use subcutaneous injections after all the NHPs on the study had adverse reactions to the pumps. Veterinary staff stated that they did not know why the animals had adverse reactions to the pumps.

The IACUC should ensure that protocols include a complete description of procedures performed on regulated species prior to approving the protocols so that animal welfare issues may be considered. In activities requiring the implantation of devices, use of a specific size of transport enclosure, or any other pertinent activity, the protocol should include a complete description of how the animal is being used in order that the IACUC may adequately assess the activity.

Previous correction date: May 11, 2013.

### 2.31 (e) (4)

#### INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC).

An amendment to a protocol using pregnant sheep approved transferring sheep found not to be pregnant (open) to a different study. The amendment stated that the pregnancy status is determined during abdominal surgery using a small incision and manual palpation of the uterus. A facility representative was asked why a less invasive method was not used to determine pregnancy status. He stated that only four percent of the ewes were open and using an alternative method, such as ultrasound, would be cost prohibitive. A total of 84 ewes were approved for use on this protocol, meaning that three to four ewes on average would undergo an unnecessary surgery.

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(b)(6),(b)(7)(c)

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Title:



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Animals should not be subjected to invasive procedures when noninvasive alternatives are available. Alternatives to painful surgeries, such as ultrasound, are readily available at this facility, thus performing surgery on open ewes is avoidable and unnecessary.

The IACUC should ensure that procedures are in place that assure that discomfort and pain to animals will be limited to those which are unavoidable for the conduct of scientifically valuable research.

Correct immediately.

### 2.33 (a) (2)

#### ATTENDING VETERINARIAN AND ADEQUATE VETERINARY CARE.

MMU 42295 had intermittent liquid stools from 9/18/12 through 3/8/13 when a diagnostic work up was performed, revealing an intestinal infection. A notation in the medical record stated that veterinary staff had asked for permission from a research assistant to obtain samples from the animal six days prior to the date the samples were obtained. The animal continued to have liquid stools after treatment of the infection, and on 4/15 blood was noticed both in the cage and on the animal. On 4/18 veterinary staff noted that the animal had a positive stool culture for a different organism and they had emailed the investigator to recommend the animal start antibiotic treatment. The investigator's response was that the animal could begin treatment the following day to avoid interference with the research project. The animal appeared to recover after the antibiotic treatment.

MMU 37591 had a history of chronic vomiting. On 9/6/12, a staff member noted that the animal had vomited six times in less than one month following two rounds of treatment for gastritis. Intermittent vomiting was still being observed by staff members in March of 2013. On 3/4/13, the investigator was emailed with a treatment recommendation. On 3/9/13 veterinary staff stated that they were waiting for a reply from the investigator regarding treatment options. On 3/13, staff again wrote that they were waiting for a reply from the investigator regarding treatment options. Later that same day they noted having a discussion with the investigator, and a decision was made to videotape the animal to confirm that it was vomiting. On 3/15 staff stated that they had sent a second email requesting videotaping. The videotaping took place on 3/21 and 3/22. The animal was eventually found to have behavioral regurgitation and received treatment for the condition.

The veterinary staff must have the authority to provide appropriate veterinary care for the animals at the facility in order to prevent unnecessary pain or distress to those animals. The facility should ensure that the veterinary staff has the authority to treat sick animals without waiting excessive periods of time for permission from investigators.

Correct immediately.

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2.38 (f) (1)

### MISCELLANEOUS.

A lamb being transported in a crate with an adult sheep (the mother) was killed during an approximately two hour trip from UC Davis to second research facility. The animal was being used in a heart disease study. The lamb had surgery at UC Davis prior to shipment and was considered to be in compromised health. The 106 kg (233 pound) female sheep (ewe) was being shipped with the lamb in an enclosure designed for smaller ewes. The SOP (standard operating procedure) for Sheep Transport to the second facility stated that the large transport crates used to transport ewes and one or two lambs measured 28" in length by 32" in width, and 35" in height. A facility representative stated that in the past the ewes being used under the protocol were much smaller and that the crate currently in use was larger than the one specified in the SOP. The crate used to transport the above animals actually measured 46.5" in length by 26" in width x 30" in height, as reported by the second research facility which was in possession of the crate. The IACUC minutes from the facility receiving the animals stated that "a very large ewe fell on a lamb during transportation between UC Davis and.... only smaller ewes will be transported going forward."

In response to the above incident, the protocol was amended to state "request that the vendor try not send us ewes over 100kg. The vendor will accommodate us when possible" The amendment also states that the facility will try transporting overly large ewes separately from the lambs.

Animals should be handled carefully, in such a manner that does not cause them trauma, physical harm, or unnecessary discomfort. The IACUC should ensure that SOPs are kept current and regularly reviewed to ensure they are appropriate for their designated animal activity. The IACUC should also ensure that corrective actions for handling issues will prevent similar problems from occurring in the future. Stating that the ewe was overly large is in this case the equivalent of stating that the crate was too small for the animal. The weight of the ewe in above incident was only seven kilograms (15.4 pounds) more than a 99 kg ewe that is not considered overly large. The amendment does not address whether the crates are appropriate for the size of the animals being transported, nor does it incorporate changes that will prevent a similar incident in the future.

Correct immediately.

An exit briefing was conducted with a facility representative.

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